DaimlerChrysler AG

Patent claims

1. A sliding valve having a sliding sleeve which is axially displaceable in a control cylinder and which controls, with at least one control face on its outer periphery, at least one control opening in the control cylinder, characterized in that the control face (23) is radially elastically flexible in the direction of the control cylinder (13).

2. The sliding valve as claimed in claim 1, characterized in that the control face (23) bears against the control cylinder (13) under a preload.

3. The sliding valve as claimed in one of the preceding claims, characterized in that the control face (23) is forced against the control cylinder (13) by the pressure of a controlled medium.

4. The sliding valve as claimed in one of the preceding claims, characterized in that the sliding sleeve (12), in the region of the control face (23), has at least one longitudinal slot (24).

5. The sliding valve as claimed in one of the preceding claims, characterized in that a plurality of longitudinal slots (24) are provided, which form between them spring tongues (25), on which the control faces (23) are disposed.

6. The sliding valve as claimed in claim 5, characterized in that the spring tongues (25) are

reinforced in the region (26) of the control faces (23).

7. The sliding valve as claimed in one of the preceding claims, characterized in that it is realized in cartridge construction.

8. The sliding valve as claimed in one of the preceding claims, characterized in that the sliding sleeve (12) is made of magnetically conductive material and its top part (27) simultaneously serves as the armature of a magnetic circuit.

9. The sliding valve as claimed in one of the preceding claims, characterized in that the sliding sleeve (12) is guided in the control cylinder (13) in a torsionally secure manner.

10. The sliding valve as claimed in one of the preceding claims, characterized in that the control cylinder (13) has a conical region (28) for the threading of the sliding sleeve (12).

11. The sliding valve as claimed in one of the preceding claims, characterized in that it is a fuel injection valve for an internal combustion engine.

12. The sliding valve as claimed in one of the preceding claims, characterized in that in the control cylinder (13) there are provided at least two axially offset control openings (17, 18), having adjoining nozzle bores (19, 20).

13. The sliding valve as claimed in one of the preceding claims, characterized in that at least

two nozzle bores (19, 20) differ in relation to their position and/or shape.